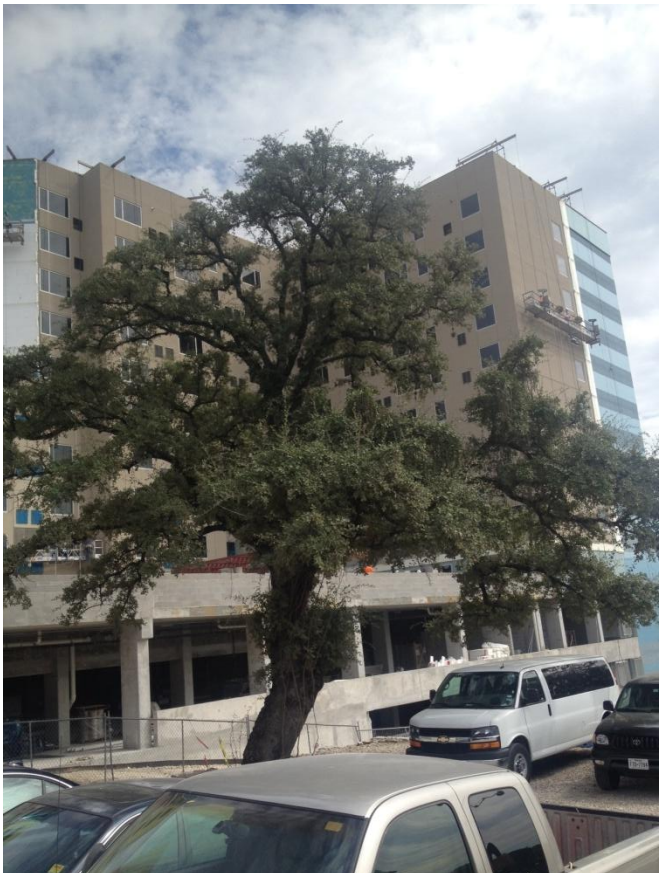
HERITAGE TREE CARE
State of the art plant systems for Central Texas

October 5th 2015

Austin Heritage Tree Foundation
ATT: Zoila Vega

RE: 504 E. 8th st. Austin Tx. 34" Escarpment Live Oak

Following is our health assessment based on the site visit performed on Monday October 5th 2015.



Method: Visual inspection.

Limits: Root collar is partly buried. Vines cover section of the stem.

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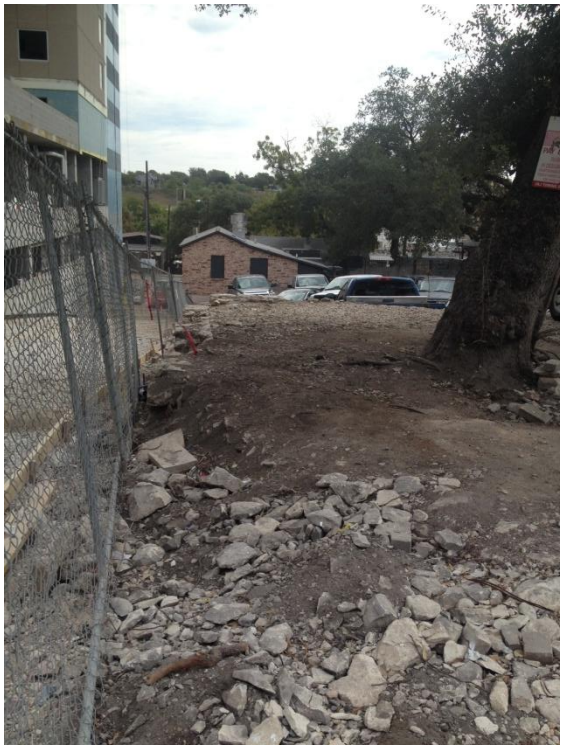
Root Zone:

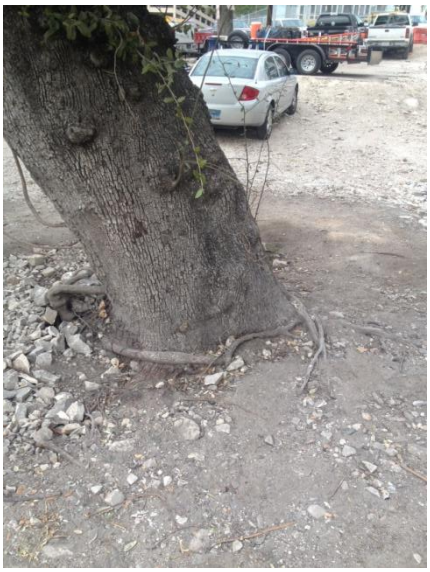


The soil and ground treatment reveals a very poor growing environment, with asphalt, construction rubble and several recent minor scars on the buttress roots.

The north and east side of the root zone show a grade change held by an old retaining wall. Roots show some old scaring and rips. We did not see signs of recent significant damage on either side. Live shallow roots growing under the east retaining wall are visible. No roots were seen beyond the north side retaining wall but this side is currently under construction and new surface treatment is being installed. As the wall is several decades old, we can assume that the tree has **self corrected** and adapted from this old grade change.

Root Collar:

Several small to medium size (-3") choking roots are present. A photograph of the excavated root collar is available on the report from Austin Tree Specialist on file. Many smaller roots are seen below the current rubble. These roots are not yet embedded in the stem tissue and can be removed by careful pruning. Their removal is a standard prescription.



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We cannot tell from that photograph if there are signs of significant rot or decay in the excavated area. No signs of rot were seen above the rubble. Traditionally, basal rot would show fruiting bodies on the outside of the stem. New fruiting bodies usually appear in the fall, at this time of the year. Stem sap rot would show fermented sap bleeding from the lower section of the stem right above the root flare. None of these were observed.
The decay at the north retaining wall location will have little to no impact on the larger roots closer to the tree and will stay localized at the retaining wall.

Stem:

Several scars and minor cavities present. An aerial inspection can reveal more details. The lower section of the stem has an approximate 25 degree lean but has self corrected at about 8ft height. The center of gravity of the stem is several feet off due to the lean. Sprouting on the trunk is present. Sprouting is the result of changes in growing conditions. They are the result of a thinner canopy on top and of a canopy raised to the point of letting sun hit the main stem. The sprouting is vigorous as their elongation shows and helps the tree adapt to the changes: it reestablish a shelter from the sun on the main stem and reestablish a root to shoot ratio by increasing the canopy where it is most needed.

Canopy and foliage

The canopy is fairly well balanced but at a poor to fair density of 60%. Most of the thicker canopy is on the bottom half of the canopy. Sky patches are clearly visible trough it when looking up from the base. Foliage is present to the top of the limbs but increasingly thinner as you go up. The foliage density is good close to the stems. No signs of dieback. Sprouting of leaves is present trough the length of all branches and mixed in with an aggressive vine.

As the overview photo from the first page and the photo on the right shows, vigorous growth has occurred this year with one year twigs extending 12 inches and sometimes more, whether from the stem sprouts, the lower denser canopy branches, or the top canopy.

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The foliage is affected by spider mites as well as covered by dust from the nearby construction site. The dust does reduce the effectiveness of the foliage.

The photo on right shows the canopy density when looking up from the base.

Interpretation:

The tree is in good health if the response to stress and vigor of sprouting is the measuring factor. Unsurprisingly, due the reduced pervious cover and the past drought years, it does display a history of past stress but still does not show signs of terminal illness. It does show a pattern of recovery after extreme stress in the form of recent vigorous growth combined with dense sprouting along the branches.
Although the site conditions are less than favorable, we believe this specimen is showing that famous resiliency typical of Central Texas Live Oaks, who are known to be able to retrench when in periods of high stress and bounce back when conditions are more favorable. This year's spring rain have boosted many older Live oaks like this and spurred them into a recovery pattern. These recovery patterns can only last if no terminal opportunistic illnesses are able to settle or borer insects attack.

If this tree is to be preserved, we recommend a thorough multi-year preservation plan that will account for protection against insect and disease attacks as well as improve the site conditions. Improvements should include increasing pervious cover by removing asphalt trough as much of the CRZ as possible, incorporating organic matter in the top layer, occasional watering to supplement natural rainfall, and protecting the surface with a layer of mulch, ideally leafy mulch. The root flare should be restored as much as practical and protected by a tree well if the grade change warrants it. Additionally, a yearly fertilizer application can accelerate the recovery and will then need to be gradually phased out.

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Transplanting potential:

We defer to large tree moving experts for this matter: It will require a feasibility study including a root mapping investigation in addition to this report.

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